

REMARKS

Reconsideration and withdrawal of the rejections of the pending claims are respectfully requested in view of the amendments and remarks herein, which place the application in condition for allowance.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 1-4 and 7-20 remain pending in the application.

Claim 1 has been amended for clarification to relate to monosaccharides via excision of the bracketed saccharide as well as recitation of “m is 0 or 1”. The proviso has also been removed as it is rendered mute in light of the removal of “m is 0 or 1”.

Claim 9 has been amended to remove the proviso.

Claims 10, 13, 15, and 17 have been amended to remove the recitation of “m = 0”.

Claims 11, 12, 14 and 18 have been canceled.

Claims 19 and 20 have been amended to remove the recitation of “m = 0 or 1”.

No new matter has been added by these amendments.

The Examiner is thanked for withdrawing rejections to claims 10, 13, 15, 17 and 19 under 35 U.S.C. § 103(a) as allegedly being obvious with respect to US 6,605,595 (Omura).

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited in the Office Action, and that these claims were in full compliance with the requirements of 35 U.S.C. §§§§ 101, 102, 103 and 112. The amendments of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. THE REJECTIONS UNDER 35 U.S.C. §103 ARE OVERCOME

Claims 1-4, 7-9, 11, 12, 14, 16, 18 and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious with respect to US 6,605,595 (Omura). Applicants respectfully traverse.

Establishing a *prima facie* case of obviousness requires that the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The Examiner is respectfully reminded of the case law, namely, that there must be some prior art teaching which would have provided the necessary incentive or motivation for modifying the reference teachings. *In re Laskowski*, 12 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*, 27 U.S.P.Q. 2d 1063 (BOPAI 1993). As stated by the Court in *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992): “The mere fact that the prior art may be modified in the manner suggested by the Office Action does not make the modification obvious unless the prior art suggests the desirability of the modification.” Also, the Examiner is respectfully reminded that for the Section 103 rejection to be proper, both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not Applicants' disclosure. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Furthermore, the Supreme Court has recently reaffirmed the factors set out in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18: “[T]he scope and content of the prior art are determined; differences between the prior art and the claims at issue are...ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. ____ (2007).

Although the Applicants do not agree with the Office Action, in the interest of expediting prosecution, claims 1, 9, 10, 13, 15, 17, 19, and 20 have been amended to delete the recitation of $m = 0$. Further, claims 11, 12, 14 and 18 have been canceled. As currently amended, Mrozik (US 6,605,595) does not teach or suggest the presently claimed invention as it does not relate to monosaccharide derivatives. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

Claims 1-4, and 7-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 93/15099 (Banks). The Examiner contends that one of ordinary skill in the art would have been motivated to select the claimed compounds embraced by the genus in Banks, which is considered obvious.

The Examiner's attention is drawn to the claims of Banks (and the specification described therein), which provides only for $-OR_1$ at C(23) wherein R_1 is an alkyl derivative (Figure 1, compounds II).

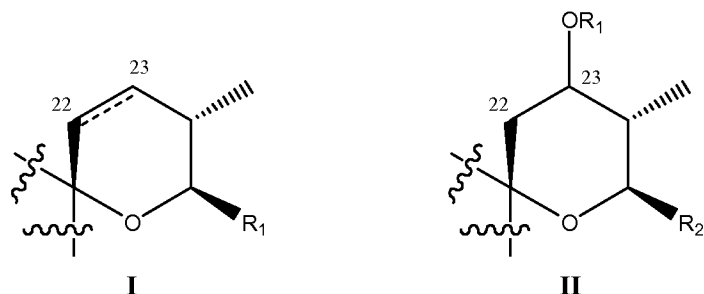


Figure 1. Compounds of the present invention (I). Compounds described in Banks (II).

The current application relates only to substitution at C(23) of hydrogen, wherein the bond between C(22) and C(23) is a single or double bond. Neither of the substitutions claimed in the present application are embraced by the genus delineated in Banks. Rather, the compounds in the applicant's invention are structurally unique. Banks does not teach nor suggest the presently claimed invention. Further, the C(23) hydrogen substitution for which the current application provides imparts non-polar characteristics in this region of the molecules, with limited reactivity and hydrogen-bonding capacities.

Additionally, the steric requirements of hydrogen substitution here are minimal. In contrast, the compounds for which Banks provides are alkoxy ethers at C(23) (see II in Figure 1, above). Given the polarizability of oxygen, along with the fact that the oxygen atom contains two lone (non-bonded) pairs of electrons, the oxygen atom possesses the ability to accept a hydrogen bond from another molecule. This will result in significantly different affinity profiles for biological receptors than that which would be expected for compounds of the current invention.

The increased polarizability of oxygen will also manifest itself in a significantly different solubility profile for the ethers of Banks relative to the currently claimed hydrocarbons at C(23). Additionally, the oxygen atom and the ether substituent for which Banks provides will occupy significantly more space, which will impact the interaction of the molecules with the biological receptor. Given the distinct steric, hydrogen bonding capability, solubility and electronic

properties between oxygen containing ethers (to which Banks relates) and hydrogen substitution (claimed in the present application), the incorporation of hydrogen in lieu of an alkyl ether at C(23) would not be *prima facie* obvious to one skilled in the art. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 with respect to Banks are respectfully requested.

REQUEST FOR INTERVIEW

If any issue remains as an impediment to allowance, an interview with the Examiner and SPE is respectfully requested, prior to issuance of any paper other than a Notice of Allowance; and, the Examiner is respectfully requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

CONCLUSION

For the reasons stated above, Applicants respectfully request a favorable reconsideration of the application, reconsideration and withdrawal of the rejections of the pending claims, and prompt issuance of a Notice of Allowance.

Respectfully submitted,
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